CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. – 9. (Canceled).

10. (Currently Amended) A method of scaling an image comprising:

incrementing a current phase location within a scaling cycle by a first ~~variable~~ value to obtain a first adjusted value, the first ~~variable~~ value indicative of a number of input pixels in the scaling cycle, wherein the scaling cycle represents a scaling operation that is repeated, such that each scaling cycle accesses a common set of filter phases to scale the number of input pixels to obtain a number of output pixels, where the number of input pixels in the scaling cycle is equal to an input resolution divided by a GCD and the number of output pixels in the scaling cycle is equal to an output resolution divided by the GCD, where the GCD is the greatest common divisor of the input resolution and output resolution;

decrementing, in response to the first adjusted value being greater than a second ~~variable~~value, the first adjusted value by one or more times the second ~~variable~~value indicative of the number of output pixels in the scaling cycle to obtain a second adjusted value less than the second ~~variable~~value; ~~and~~

determining an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount;

accessing, at a data processor, the coefficient set from a computer readable medium based on the index value; and

determining a scaled pixel value based upon the coefficient set;

outputting the scaled pixel value from the data processor.

11. (Canceled)

12. (Currently Amended) The method of claim 10 further comprising:

~~when~~ in response to the index value ~~is~~ being within a first range, accessing the coefficient set from a mirror location;

~~when~~ in response to the index value ~~is~~ being within a second range, accessing the coefficient set from a direct location~~; and~~

~~determining a scaled pixel value based upon the coefficient set.~~

13. (Currently Amended) The method of claim 12 wherein determining the scaled pixel value further comprises reversing the coefficients ~~when~~ in response to the coefficient set ~~is~~ being accessed from ~~a~~ the mirror location.

14. (Original) The method of claim 10 further comprising:

receiving the predetermined amount from a control word.

15. (Currently Amended) The method of claim 10 further comprising:

determining the predetermined amount from a control word.

16. (Currently Amended) A video scaler comprising:

a means for incrementing a current phase location within a scaling cycle by a first ~~variable~~ value to obtain a first adjusted value, the first ~~variable~~value indicative of a number of input pixels in the scaling cycle, wherein the scaling cycle represents a scaling operation that is repeated, such that each scaling cycle accesses a common set of filter phases to scale the number of input pixels to obtain a number of output pixels, where the number of input pixels in the scaling cycle is equal to an input resolution divided by a GCD and the number of output pixels in the scaling cycle is equal to an output resolution divided by the GCD, where the GCD is the greatest common divisor of the input resolution and output resolution;

a means for decrementing, in response to the first adjusted value being greater than a second ~~variable~~value, the first adjusted value by one or more times the second ~~variable~~value, the second value ~~indicative of the number of output pixels in the~~

~~scaling cycle~~ to obtain a second adjusted value less than the second ~~variable~~value indicative of the number of output pixels in the scaling cycle; and

a means for determining an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount.

17. (Currently Amended) A system comprising:

[[an]] a data processor for executing instructions; and

a memory for storing the instructions, the instructions to:

increment a current phase location within a scaling cycle by a first ~~variable~~value to obtain a first adjusted value, the first ~~variable~~value indicative of a number of input pixels in the scaling cycle, wherein the scaling cycle represents a scaling operation that is repeated, such that each scaling cycle accesses a common set of filter phases to scale the number of input pixels to obtain a number of output pixels, where the number of input pixels in the scaling cycle is equal to an input resolution divided by a GCD and the number of output pixels in the scaling cycle is equal to an output resolution divided by the GCD, where the GCD is the greatest common divisor of the input resolution and output resolution;

decrement, in response to the first adjusted value being greater than a second ~~variable~~value, the first adjusted value by one or more times the second ~~variable~~value the second value ~~indicative of the number of output pixels in the scaling cycle~~ to obtain a second adjusted value less than the second ~~variable~~value indicative of the number of output pixels in the scaling cycle; and

determine an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount.

18. (Currently Amended) A computer readable ~~media storing~~storage medium encoded with control information ~~for implementing a plurality of operations, the operations to~~ causing a computer to perform the operations that:

increment a current phase location within a scaling cycle by a first ~~variable~~value to obtain a first adjusted value, the first ~~variable~~value indicative of a number of input pixels in the scaling cycle, wherein the scaling cycle represents a scaling operation that

is repeated, such that each scaling cycle accesses a common set of filter phases to scale the number of input pixels to obtain a number of output pixels, where the number of input pixels in the scaling cycle is equal to an input resolution divided by a GCD and the number of output pixels in the scaling cycle is equal to an output resolution divided by the GCD, where the GCD is the greatest common divisor of the input resolution and output resolution;

decrement, in response to the first adjusted value being greater than a second ~~variable~~value, the first adjusted value by one or more times the second ~~variable~~value, the second value ~~indicative of the number of output pixels in the scaling cycle~~ to obtain a second adjusted value less than the second ~~variable~~value indicative of the number of output pixels in the scaling cycle; and

determine an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount.

19. (Currently Amended) A method comprising:

storing X sets of coefficients representing ~~2*X+1~~ 2*(X-1)+1 available filter phases, where X is a positive integer; and

determining, based on a number of output pixels per scaling cycle and the ~~number of~~ 2*(X-1)+1 available filter phases, a set of N filter phases~~a number of used filter phases N~~ used during a scaling cycle, where N is a positive integer, and~~wherein~~ the scaling cycle represents a scaling operation that is repeated, such that each scaling cycle accesses ~~a common~~the set of N filter phases to scale a number of input pixels to obtain a number of output pixels, where the number of input pixels in the scaling cycle is equal to an input resolution divided by a GCD, the number of output pixels in the scaling cycle is equal to an output resolution divided by the GCD, where the GCD is the greatest common divisor of the input resolution and output resolution, and N is less than 2*(X-1)+1~~2*X+1~~;

scaling each input pixel of the number of input pixels based on the selected N filter phases to obtain each output pixel of the number of output pixels; and

outputting each output pixel of the number of output pixels from a data processor.

20. (Currently Amended) The method of claim 19 ~~where in~~wherein ~~determining the number~~ the number N is equal to L >> S, where L is the output resolution divided by the GCD, and S is an integer indicating the number of times L needs to be right-shifted (>>)to have a value less than 2*(X-1)+1.~~of used phases further comprises right shifting the number of output pixels until a value equal to the number of output pixels right shifted S times is less than the number of available filter phases.~~

21. (Canceled)